

CYCOLOY™ C2800 resin

Polycarbonate + ABS

SABIC Innovative Plastics

Message:

Non-chlorinated and non-brominated flame retardant PC+ABS offering balanced flow and impact properties for various applications.

General Information			
UL YellowCard	E45329-236714		
Additive	Flame retardancy		
Features	Chlorine Free		
	Impact resistance, good		
	Good liquidity		
	Bromine-free		
	Flame retardancy		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.17	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	15.0	cm³/10min	ISO 1133
Molding Shrinkage - Flow ¹	0.40 - 0.60	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.60	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ISO 2039-2
Ball Indentation Hardness (H 358/30)	115	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2700	MPa	ISO 527-2/1
Tensile Stress			
Yield	50.0	MPa	ISO 527-2/5
Yield	55.0	MPa	ISO 527-2/50
Fracture	40.0	MPa	ISO 527-2/5, ISO 527-2/50
Tensile Strain			
Yield	3.0	%	ISO 527-2/5, ISO 527-2/50
Fracture	29	%	ISO 527-2/5
Fracture	> 50	%	ISO 527-2/50
Flexural Modulus ²	2600	MPa	ISO 178
Flexural Stress	90.0	MPa	ISO 178

Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	72.0	mg	Internal method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	9.0	kJ/m ²	ISO 179/1eA
23°C	30	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ⁴			ISO 179/1eU
	No Break		
-30°C	No Break		ISO 179/1eU
	No Break		
23°C	No Break		ISO 179/1eU
Notched Izod Impact ⁵			ISO 180/1A
-30°C	10	kJ/m ²	ISO 180/1A
23°C	30	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ⁶			ISO 180/1U
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁷			
0.45 MPa, unannealed, 100 mm span	88.0	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	78.0	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	92.0	°C	ISO 306/B50
--	95.0	°C	ISO 306/B120
Ball Pressure Test			IEC 60695-10-2
75°C	Pass		IEC 60695-10-2
80°C ⁸	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ISO 11359-2
Flow: -40 to 40°C	7.5E-5	cm/cm/°C	ISO 11359-2
Flow: 23 to 60°C	8.0E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	7.5E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 60°C	8.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.20	W/m/K	ISO 8302
RTI Elec	60.0	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI	60.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093

Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength			IEC 60243-1
0.800mm, in oil	35	kV/mm	IEC 60243-1
1.60mm, in oil	25	kV/mm	IEC 60243-1
3.20mm, in oil	17	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.80		IEC 60250
60 Hz	2.80		IEC 60250
1 MHz	2.70		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	4.0E-3		IEC 60250
60 Hz	4.0E-3		IEC 60250
1 MHz	6.0E-3		IEC 60250
Comparative Tracking Index (CTI)	PLC 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.890 mm	V-2		UL 94
1.50 mm	V-0		UL 94
2.30 mm	5VB		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
1.00 mm	850	°C	IEC 60695-2-12
3.20 mm	960	°C	IEC 60695-2-12
Oxygen Index	32	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	75.0 - 80.0	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	200 - 230	°C	
Middle Temperature	220 - 260	°C	
Front Temperature	230 - 270	°C	
Nozzle Temperature	220 - 260	°C	
Processing (Melt) Temp	230 - 270	°C	
Mold Temperature	50.0 - 70.0	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*4 sp=62mm		
4.	80*10*4 sp=62mm		
5.	80*10*4		
6.	80*10*4		
7.	120*10*4 mm		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

